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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,173	09/24/2003	Boris Ginzburg	P-6065-US	1568
49444 7590 03/21/2007 PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			EXAMINER HANNON, CHRISTIAN A	
			ART UNIT	PAPER NUMBER
			2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/668,173

Applicant(s)

GINZBURG, BORIS

Examiner

Christian A. Hannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 & 22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Peng et al (US 2004/0093421), hereinafter Peng.

Regarding claims 1, 10, 22, & 25 Peng teaches a method, apparatus & system comprising estimating a number of active stations in a communication network based on a number of stations from which transmissions are received during a pre-defined time period (Page 1, [0005], Page 3, [0052-0054]), adapting a size of a contention window of a collision avoidance mechanism based on the estimated number of active stations of said communication network (Page 3, [0054]) and transmitting a signal indicating adaptation of a size of said contention window (Page 4, [0056]). Furthermore Peng teaches an algorithm for use in a processor of a communication node, WAP; therefore claim 10 reads analogous to claim 1 and is similarly rejected (Page 1, [0002]).

Regarding claim 2, Peng teaches the method of claim 1, comprising dynamically modifying the size of said contention window (Page 5, [0071]).

Regarding claim 3, Peng teaches the method of claim 1, comprising modifying a parameter used in computing the size of said contention window (Page 4, [0056]).

Regarding claim 4, Peng teaches the method of claim 3, comprising modifying a parameter indicating a minimum size of the contention window (Page 1, [0006], Page 3, [0049]).

Regarding claim 5, Peng teaches the method of claim 3, comprising modifying a parameter indicating an initial maximum size of the contention window (Page 1, [0007], Page 1, [0023]).

Regarding claim 6, Peng teaches the method of claim 3, comprising modifying a parameter indicating a non-initial maximum size of the contention window (Page 1, [0007], Page 1, [0023]).

Regarding claim 7, Peng teaches the method of claim 3, comprising modifying the size of the contention window in relation to an estimated probability of collisions (Page 1, [0023]).

Regarding claim 8, Peng teaches the method of claim 1, comprising sending a signal indicating a request for modification of the size of the contention window (Page 1, [0023]).

Regarding claim 9, Peng teaches the method of claim 1, comprising modifying a threshold value of a request-to-send mechanism (Page 3, [0054]).

Regarding claim 11, Peng teaches the method of claim 10, wherein the apparatus comprises a wireless modem (Page 4, [0056]).

Regarding claim 12, Peng teaches the method of claim 10, wherein the apparatus comprises a wireless access point (Page 1, [0002]).

Regarding claim 13, Peng teaches the method of claim 10, wherein the processor is to modify a parameter used in computing the contention window (Page 4, [0056]).

Regarding claim 14, Peng teaches the method of claim 13, wherein the parameter used in computing the contention window comprises a parameter indicating a minimum size of the contention window (Page 1, [0006], Page 3, [0049]).

Regarding claim 15, Peng teaches the method of claim 13, wherein the parameter used in computing the contention window comprises a parameter indicating an initial maximum size of the contention window (Page 1, [0007], Page 1, [0023]).

Regarding claim 16, Peng teaches the method of claim 13, wherein the parameter used in computing the contention window comprises a parameter indicating a non-initial maximum size of the contention window (Page 1, [0007], Page 1, [0023]).

Regarding claim 17, Peng teaches the method of claim 10, wherein the processor is to adapt the size of said contention window based on an estimated probability of collisions (Page 1, [0023]).

Regarding claim 18, Peng teaches the apparatus of claim 10, wherein the processor is to modify a threshold value of a request-to-send mechanism (Page 3, [0054]).

Regarding claim 23, Peng teaches the apparatus of claim 22, wherein the signal comprises a signal indicating modification of a parameter used in computing the contention window (Page 1, [0006], Page 3, [0049]).

Regarding claim 24, Peng teaches the apparatus of claim 22, wherein the signal comprises a signal indicating modification of a threshold value of a request-to-send mechanism (Page 3, [0054]).

Regarding claim 26, Peng teaches claim 25, wherein the instructions result in dynamically modifying the size of said contention window (Page 5, [0071]).

Regarding claim 27, Peng teaches claim 25, wherein the instructions result in modifying a threshold value of a request-to-send mechanism (Page 3, [0054]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng in view of Guo et al (US 2004/0170150), hereinafter Guo.

Regarding claim 19, Peng teaches a wireless communication device comprising a processor to estimate a number of active stations in a communication network based on a number of stations from which transmissions are received during a predefined time period (Page 1, [0005], Page 3, [0052-0054]; Peng) to adapt a size of a contention

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window of a collision avoidance mechanism based on an estimated number of active stations of a communication network (Page 3, [0054]; Peng) and to transmit a signal indicating adaptation of a size of said contention window (Page 1, [0002]; Peng). Peng fails to explicitly teach a dipole antenna, although it is obvious to one of ordinary skill in the art that a wireless device requires an antenna. Guo teaches a dipole antenna (Figure 2, Item 202; Guo). Therefore it would be obvious to outfit the wireless device of Peng with a dipole antenna, as taught by Guo, in order to provide a widely known cost effective antenna solution to the wireless node.

Regarding claim 20, Peng and Guo teach the device of claim 19, furthermore Peng teaches wherein the processor is to dynamically modify a parameter used in computing the contention window (Page 4, [0056]).

Regarding claim 21, Peng and Guo teach the device of claim 19, furthermore Peng teaches wherein the processor is to dynamically modify a threshold value of a request-to-send mechanism (Page 3, [0054], Page 5, [0071]).

Response to Arguments

5. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Negus (US 7,085,284) discloses a Prioritization scheme for CSMA/CA.

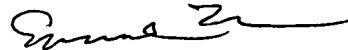
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



C. A. Hannon
March 8, 2007



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